

Amendments to the Specification

IN THE ABSTRACT OF THE DISCLOSURE

Attached hereto is a replacement Abstract.

IN THE WRITTEN DESCRIPTION

Please replace paragraph [018] with the following amended paragraph:

[018] In not shown manner the supply channel 7 is connected to a liquid storage chamber. The dosing chamber 3 preferably has a capacity of 2 to 3 ~~µl~~^{ml}. The supply of liquid from the storage chamber to the dosing chamber 3 preferably takes place either by a slight overpressure in the vicinity of the storage chamber and/or by capillary action.

Please replace paragraph [020] with the following amended paragraph:

[020] In order to permit a discharge process, the lower boundary surface of the dosing chamber 3, in the present case the base structure 4, can be vibrated, preferably in the high frequency range, by a piezoelectric actuator 6, which has a plate-like construction and is connected by an electrode to an electrical or electronic control element 10. The electrical or electronic control element 10 is connected by a further electrode to a base side of the base structure 4. The control element 10 is connected both to a delivery function unit 12 and to a drying function unit 11. Both the drying function unit 11 and the delivery function unit 12 form part of a diagrammatically represented electronic control unit S, which by means of a not shown time function element alternatively permits an activation of the control element 10 by the delivery function unit 12 or the drying function unit 11. Preferably both the drying function unit 11 and the delivery function unit 12 are designed as suitable electronic components. It is alternatively possible to create the drying function unit 11 and delivery function unit 12 within a

software structure in an electronic subassembly so as to constitute separate function units. Both the drying function unit 11 and delivery function unit 12 are designed in such a way that they alternatively switch on and then switch off again for a certain time period the control element 10 and therefore the piezoelectric actuator 6. The block diagram of fig. 2 illustrates the time-dependent switching on and off of the delivery function unit 12 and drying function unit 11. The reference letter A designates the switched off, i.e. deactivated state of the piezoelectric actuator 6 and E designates the switched on and therefore activated state of the piezoelectric actuator 6. On the abscissa of the planar coordinate system appears the time t . As has already been described, the ordinate represents the activating or operating state of the piezoelectric actuator. In the time period from t_1 to t_2 the actuator 6 is activated by the delivery function unit 12. During this time the dosing volume necessary for a corresponding application or administration is atomized and supplied to the corresponding respiratory tracts of the human being. The dosing volume is preferably between 10 and 30 μl . During the atomizing process in the time period t_1 to t_2 the microvalve 8 is opened by means of the actuating member 9. As from the time t_2 and up to a time t_3 the piezoelectric actuator 6 is switched off, i.e. deactivated. In order to remove any small liquid residues which may be present within the dosing chamber 3 before a corresponding liquid quantity is again supplied via the supply channel 7 and microvalve 8, as from time t_3 the piezoelectric actuator 6 is activated, i.e. switched on by the drying function unit 11. As the base structure 4 and membrane 2 substantially dry vibrate due to the activation of the piezoelectric actuator 6, the dosing chamber 3 is subject to heating, so that any liquid residues present evaporate and are discharged through the discharge openings 5. The drying function unit 11 activates the piezoelectric actuator 6 up to the time t_4 and then switches it off, i.e. deactivates it. Now once again a liquid quantity

can be supplied from the storage chamber to the dosing chamber
3. A contamination of the liquid supplied from the closed storage chamber as a result of liquid residues remaining from the preceding dosing process is avoided, because such liquid residues are removed by the prior drying process. Now a further dosing process can take place, which once again leads in time-separated manner to a corresponding drying process.